

## WHAT IS CLAIMED, IS:

1. A method for compensating scanning disturbances on optical recording media such as occur in a control loop of a playback or recording unit, in particular as settling amplitude (ESA1) after a disk disturbance (ST), wherein:
  - a follow-up signal (A2) counteracting the settling amplitude (ESA1) is coupled into the control loop as additional offset as a function of the frequency of the occurrence of a disk disturbance (ST) for a prescribed time interval for the purpose of compensating scanning disturbances.
2. The method as claimed in claim 1, wherein in the case of a settling amplitude (ESA1) that occurs anew in the same direction after approximately one revolution of the optical recording medium, the follow-up signal (A2) is increased by at least one step width (X), and is reduced in the case of a change in direction of the settling amplitude (ESA1).
3. The method as claimed in claim 2, wherein the step width (X) is an extremely small unit by which an offset (A1) in the control loop can be varied.
4. The method as claimed in claim 2, wherein the step width (X) of the follow-up signal (A2) is varied in a fashion that is linearly or nonlinearly rising or falling.
5. The method as claimed in claim 1, wherein the step width (X) of the follow-up signal (A2) has a value of approximately 10 per cent of the amplitude of the settling amplitude (ESA1).

6. The method as claimed in claim 1, wherein the prescribed time interval for which the follow-up signal (A2) counteracting the settling amplitude (ESA1) is coupled into the control loop corresponds to the  
5 duration of one revolution of the optical recording medium.

7. The method as claimed in claim 1, wherein the prescribed time interval for which the follow-up signal  
10 (A2) counteracting the settling amplitude (ESA1) is coupled into the control loop corresponds at least to the length of duration of the disk disturbance (ST) or the time interval for which the settling amplitude (ESA1) exceeds a prescribed threshold value.

15 8. The method as claimed in claim 1, wherein the follow-up signal (A2) is inserted into the control loop after the disk disturbance (ST), as early as during the disk disturbance (ST) and in a fashion transgressing  
20 the disk disturbance (ST).

9. The method as claimed in claim 1, wherein the follow-up signal (A2) is produced in stepwise fashion for large follow-up signal values (A2) in the event of  
25 absence of the disk disturbance (ST) after at least one revolution (U).

10. The method as claimed in claim 1, wherein in the event of a plurality of disk disturbances (ST) during  
30 one revolution of the optical recording medium only the settling behavior occurring with the greatest settling amplitude (ESA1) is evaluated and used to form the follow-up signal (A2).

35 11. The method as claimed in claim 1, wherein the follow-up signal (A2) has an amplitude and direction that leads the scanning beam (L) of the optical

recording medium in the forward direction of a data track to be scanned after the disk disturbance (ST).

12. The method as claimed in claim 1, wherein the  
5 method is used for follow-up control of balance trimming.

13. An arrangement for compensating scanning  
disturbances on optical recording media such as occur  
10 in a control loop of a playback or recording unit, in particular as settling amplitude (ESA1) after a disk disturbance (ST), wherein  
a control unit (uC) is provided that, for the purpose of evaluating the settling amplitude (ESA1) of the  
15 control loop after a disk disturbance (ST), is connected via an input (E1) to a connection providing an error signal (FE, TE) of the control loop, and  
is connected to a summation point (S1 or S2) of the control loop that is provided for feeding in a follow-  
20 up signal (A2) that counteracts the settling amplitude (ESA1) and is coupled into the control loop as additional offset as a function of the frequency of the occurrence of a disk disturbance (ST) for a prescribed  
time interval in order to compensate scanning  
25 disturbances in the control loop.

14. The arrangement as claimed in claim 13, wherein  
the connection providing the error signal (FE, TE) of  
the control loop is the input of the control amplifier  
30 (RV) of the control loop, and the summation point (S1 or S2) of the control loop is an adder in the connecting lead of an amplifier (PRE) for providing the error signal (FE, TE) in the control loop.

35 15. A playback or recording unit for compensating scanning disturbances on optical recording media such as occur in a control loop of a playback or recording unit, in particular as settling amplitude (ESA1) after

PD030025

- 30 -

a disk disturbance (ST), wherein one of claims 1 to 14 is used in the playback or recording unit.